



**ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
JUNE 6, 2002 - 9:00 A.M.
EXECUTIVE CONFERENCE ROOM**

Paul Miller's Last EOC Meeting

Larry Tibbits and members of the EOC acknowledged this as Paul's last meeting. He is retiring at the end of the month and has served on EOC since October 1992 when he was Engineer of Engineering Services. Paul's service and dedication to the department are deeply appreciated, as well as his contributions of knowledge and experience to this committee. We wish him the very best as he begins a new chapter in his life. Have a great retirement Paul! "It's Miller time!"

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|----------|---------------|---------------|-----------------|
| Present: | L. E. Tibbits | G. D. Taylor | J. D. Culp |
| | C. Roberts | P. F. Miller | J. D. O'Doherty |
| | T. Davies | J. W. Reincke | T. Fudaly |
| | S. Bower | | |
| Guests: | J. Friend | B. Lower | J. Ruszkowski |
| | K. Kennedy | L. Galehouse | C. Bleech |
| | J. T. LaVoy | M. Frankhouse | |

OLD BUSINESS

1. Approval of the Minutes of the May 7, 2002, Meeting - L. E. Tibbits

Minutes of the May 7, 2002, meeting were approved.

2. Approval of the 2002 Edition of the *Maintenance Guidelines for Work Zone Traffic Control* (See May 7, 2002, Minutes, Old Business, Item 2) - B. Lower/C. Roberts

ACTION: The guidelines were approved as written. The Maintenance Division will distribute as necessary.

3. FHWA Approval of Specifications (See March 12, 2002, Minutes, Old Business, Item 4) - J. Ruszkowski

A task group was formed to draft a procedure to ensure FHWA review and approval of designated specifications prior to use on NHS projects. The group drafted a process that was reviewed and discussed by EOC.

ACTION: The draft procedure was approved contingent upon the corrections discussed being incorporated into the document. Judy will make the changes as noted,

and e-mail the revisions to EOC members for our review and return within one week. After 6-12 months of use, the procedure should be reviewed and amended, as necessary.

4. **Evaluation Report of Michigan's Capital Preventative Maintenance Program (See February 7, 2002, Minutes, New Business, Item 3) - L. Galehouse**

The consultant's report has been edited and the final draft prepared. A major finding is that we are getting value out of our preventative maintenance program, and that treatments are lasting and effective.

ACTION: The report is approved with corrections and changes as noted by EOC. Larry will e-mail corrections to EOC members within one week for final review and comment. The report will be primarily published and distributed on CD Rom due to its volume. Hard copies will be available.

5. **Deer-Vehicle Crash Research Proposals (See May 7, 2002, Minutes, New Business, Item 3) - J. W. Reincke/J. D. O'Doherty**

The Michigan Deer Crash Coalition (MDCC) was requested to gather additional financial commitments in lieu of MDOT fully funding these two research proposals, as MDCC is a public/private partnership with many supporting members. Contributions were promised from MDNR, AAA, and MSU. However, the low level of this additional funding, coupled with a reduction in our SPR funding for research in a nearly fully appropriated program, removes the project from the list of new proposals under consideration.

ACTION: The two research proposals are not accepted at this time.

NEW BUSINESS

1. **Pavement Selection, US-23 Rehabilitation, CS 71072/71073, JN 48556/Rubblize and HMA Overlay Selection - K. Kennedy**

The reconstruction alternates considered were a rubblize and HMA overlay (Alternate 1 - Equivalent Uniform Annual Cost [EUAC] \$17,167/directional mile), and an unbonded jointed plain concrete overlay (Alternate 2 - EUAC \$27,898/directional mile).

A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest EUAC. The pavement design and cost analysis summary are as follows:

Alternate 1A (86.1 Percent of the Project) Rehabilitation: Rubblize and HMA Overlay (Two Lane Section)

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|-------|--------------------------|
| 1.5" | HMA 5E1, Top Course |
| 2" | HMA 4E1, Leveling Course |
| 3" | HMA 3E1, Base Course |
| 8" | Rubblized Concrete |
| 16" | Existing Base/Subbase |
| 30.5" | Total Thickness |

Alternate 1B (13.9 Percent of the Project) Rehabilitation: Rubblize and HMA Overlay (Three Lane Section)

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|-------|--|
| 1.5" | HMA 5E1, Top Course |
| 2" | HMA 4E1, Leveling Course |
| 3" | HMA 3E1, Base Course |
| 8" | Rubblized Concrete (Existing Lanes) |
| 16" | Existing Base/Subbase (Existing Lanes) |
| 6" | Aggregate Base (Widening) |
| 12" | Subbase (Widening) |
| 30.5" | Total Thickness |

| | |
|--|----------------------------|
| Present Value Initial Construction Costs | \$203,460/directional mile |
| Present Value Initial User Costs | \$1,010/directional mile |
| Present Value Maintenance Costs | \$87,901/directional mile |
| EUAC | \$17,167/directional mile |

2. Pavement Demonstration Program - S. Bower

State legislation enacted in 2001 allows the department to construct up to four pavement demonstration projects each year to evaluate new construction methods, materials, or designs. The Pavement Committee developed draft guidelines for this type of program. There is no special funding available and the economics of a demonstration project must fit in our five year plan and budget. Several comments and suggestions were made. The guideline will be reworked and will be presented to region delivery and development engineers at their upcoming meeting.

ACTION: Upon region review and comment, including evaluation of candidate projects for 2003, the proposed guidelines and project recommendations will be returned to EOC for action at the July meeting.

3. Pavement Acceptance - S. Bower

The pavement acceptance special provisions for concrete and HMA were reviewed and updated by the Pavement Committee based on experience gained over the last three construction seasons. The intent is to reinforce Section 1 of the specifications book, as well as provide objective measures that clearly outline what pavement condition is required for initial acceptance for warranty and non-warranty projects.

ACTION: The special provisions will be sent out for region review through Thom Davies. Following their review and comment, the special provisions will be returned to EOC for action.

4. Reinforced Concrete as Standard for Concrete Design - J. Friend

The chief operations officer requested a review of our standard and current concrete designs. Nationally, most states design and build asphalt pavements only. Michigan may be one of a dozen or so states still building both concrete and asphalt roads. There will be three jointed reinforced concrete pavement projects in this year's program; none are scheduled for 2003. Plain concrete pavements with a warranty are performing at a high level.

ACTION: John LaVoy (Construction and Technology Division) will summarize data from the other states still using concrete designs. EOC will continue reviewing data and research results as part of our continuing dialog on pavement policy.

(Signed Copy on File at C&T)
Jon W. Reincke, Secretary
Engineering Operations Committee

JWR:kat

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|-----|--------------------|-----------------|------------------|--------------------------|
| cc: | EOC Members | J. Ruszkowski | K. Rothwell | J. Murner (MRPA) |
| | Region Engineers | R. D. Till | T. E. Myers | M. Nystrom (AUC) |
| | G. J. Rosine | C. Libiran | T. Phillips | R. J. Risser, Jr. (MCPA) |
| | C. T. Maki | M. Frierson | D. L. Smiley | A. C. Milo (MRBA) |
| | J. Friend | G. J. Bukoski | K. Peters | J. Becsey (MAPA) |
| | T. Anderson | C. W. Whiteside | T. L. Nelson | D. Hollingsworth (MCA) |
| | R. J. Lippert, Jr. | L. Stornant | J. Steele (FHWA) | M. Newman (MAA) |